and judicial interpretation to modify or construe early law so as to make it applicable to modern industrial conditions. No fact more strikingly shows the great change of modern over earlier conditions than the fact that this effort is concerned so largely with the matter of constitutional construction.

Mr. Stimson's discussion of the modern use of injunction in labor disputes constitutes undoubtedly the most interesting chapter of the book to the general reader. The excellent manner in which the book is printed and bound adds materially to the pleasure and ease with which it can be consulted.

WILLIAM FRANKLIN WILLOUGHBY.

Washington, D. C.

Wages and Capital. An Examination of the Wages-fund Doctrine. BY F. W. TAUSSIG. Pp. 329. Price, $1.50. New York: D. Appleton & Co., 1896.

The purpose of this book is twofold, as indicated by its title. It is a critical account of the development of the wages-fund doctrine and it also contains the essentials of the author's positive theory of the relation of wages to capital.

The book is a model for compressed and concise statement and the style is clear, terse and vigorous. Professor Taussig has robbed a dry subject of its dryness. He has brilliantly called back to life a dead controversy.

The work suggests comparison with Böhm-Bawerk's two volumes on interest. It undertakes in a measure for the theory of wages what the Austrian writer has done for the theory of interest, and it must be conceded decided superiority in several particulars. It has not the tedious fullness and unnecessary repetition of the "Positive Theory of Capital." The historical part is likewise more compressed yet in the main quite as satisfactory. True, Professor Taussig has the narrower subject, a briefer time to cover and only one aspect of the theory of wages to keep centrally in mind. But allowance made for all this, Professor Taussig reaches his points more easily and with fewer bewildering excursions into by-way discussion. Professor Taussig finds the basis of the wages-fund in Smith's treatment of capital with reference to wages. "Adam Smith had shown," he says, "that, in a society having a developed division of labor, the process of production was spread over some length of time and that for the laborers in such a society subsistence must be provided until their present labor should result in finished goods in the future . . . . further he had shown that, under the unequal distribution of wealth in modern societies, the supplies from which laborers must for

the moment get their subsistence, are in the hands of others; hence laborers get them by a bargain with those others." But he had not shown "exactly what the employers have to offer in that bargain." While he set forth the fact that hired laborers "are dependent on advances from the capital of the employers," he did not clearly state "what that capital consists of."

In the period between Adam Smith and Ricardo, Professor Taussig finds that no writer "got beyond the point reached by the former in his analysis of capital at large and of the place of capital in the payment of wages."

Ricardo's chief importance in the development of the theory is in the emphasis which he placed upon the two propositions that "all capital is resolvable into advances to laborers" and "that *market* wages depend on the demand and supply of labor," the demand for labor coming from the "capital of those who hire laborers for production." He also seems to have believed in "the rigidity of the part of the capital which could go to laborers in any one season." The dependence of wages on capital and the determination of wages by the ratio of capital to population seem to have been unhesitatingly assumed by the writers of the entire period from Adam Smith to J. S. Mill. The importance of the "standard of living" and the "habits" of the people was recognized as fixing the meaning of the subsistence of labor. The effect of the Malthusian doctrine was great in giving definiteness and strength to the factor of the growth of population. Professor Taussig thinks that the "general vagueness of statement" and lack of emphasis upon the important parts of the doctrine were due to the fact that the "main interest of the writers . . . was in other subjects." "They believed that the chief means of bettering the condition of mankind was on the one hand by the maintenance of a high standard of living, on the other by improvements in the machinery of production." The too rapid increase of population was the only serious probable danger threatening progress. Hence the, to them, obvious principles of the current wages-doctrine were assumed that they might put their emphasis upon "the necessity of restraint on the advance of population. The rigidity of the wages-fund was not generally taught, indeed, most of the writers, in discussing the possibility of increasing wages through trades-unions and other means, seem to have assumed that the fund was elastic. Professor Taussig is unwilling to give M'Culloch the credit of originating the wages-fund doctrine and says "but there is an *à priori* improbability that he really originated any independent doctrine whatever and no indication that he did more . . . than to restate . . . what had been worked out by others."

He gives Senior deserved praise for attempting to "examine in detail the causes determining the real fund for the maintenance of laborers," and for achieving a restatement of the problem which showed that he appreciated the vagueness and shortcomings of the current theory. But Senior himself in pushing his inquiry fell at last into the traditional form of exposition and failed to advance the theory. In this latter view of Senior, it may be questioned whether Professor Taussig does full justice to the strength of the influence exerted by Senior. Senior, in developing his idea that the fund for the maintenance of labor depends on the general productiveness of the laborers of the community, lays considerable stress on the intelligence and skill of the laborers. It needs but a step from these propositions to reach the foundation of the modern opposition to the wages-fund doctrine. If the intelligence and skill of the laborers determine the amount of the fund which maintains them, we have in sight the doctrine that wages are paid out of product. A new point of view is presented. It does not seem unlikely that this analysis of Senior was the starting point from which General Walker led his argument against the wages-fund, especially in view of the fact that Walker by his own frank admission has been a close student of Senior.

In his excellent chapter on John Stuart Mill, Professor Taussig points out that Mill made no contribution to the wages-fund doctrine. "The wages-fund doctrine is stated briefly and boldly; its foundations in the nature of civilized production is hardly noticed; its teaching is aimed chiefly at the need of repressing numbers. Its application in other directions is cumbered and confused by references to funds and capital in terms of money, which obscure the essential truths of the doctrine, and became the source of the memorable but fruitless controversy which resulted in Mill's recantation."

The controversy over the wages-fund begun by Longe and continued by Thornton, Mill and Cairnes is sketched briefly and ably in another chapter. The attacks of Longe and Thornton are found inadequate, Mill is blamed for his recantation, and Cairnes is declared not to have met Thornton's objections squarely and not to have reached the essential controversy at all.

A chapter is devoted to the wages-fund doctrine in Germany, showing the dominance of Hermann's theory of consumer's income, not capital, as the source of wages. It is surprising that no reference is made to von Thünen, who certainly wrote ably and influentially upon the relation of capital to wages.

In the last historical chapter, entitled "Contemporary Discussion," Professor Taussig indicates the bearing upon the wages-fund theory of two main trends of modern thought—the theory that laborers'

wages are paid out of their product, urged chiefly by Henry George and Francis A. Walker and the Austrian theory of value, particularly as it is developed by Böhm-Bawerk. This will probably be judged the most interesting chapter of the historical part, because it connects itself with several of the most vital questions of our time.

The best part of Professor Taussig's constructive work is in his third chapter, entitled "The Machinery of Distribution." With rapid, graphic touches he sketches the important and distinctive features of our modern industrial organization. The independent producers, in possession by ownership or hire of the capital of the society, the intricate interweaving of capital and management in corporations, the army of laborers depending solely on their hire. Rightly he places no emphasis on land ownership as a distinctive part of the machinery, for in the large its importance belongs to the past or possibly again to the future. The machinery by which the capital of idle investors reaches the hands of active managers is described. Then the whole mechanism is exhibited in action. The production of goods, their sale through the complicated mechanism of merchants of different grades, the receipt of the money price of the output by the managers and their distribution of it in interest and wages and profits to the corresponding classes. He insists upon tracing the actual movements, upon keeping in mind always this actual machinery and the processes which it necessitates, if we would understand the laws of modern distribution. The description is brief, but its brevity is that which comes after a thorough insight into the concrete detail.

In this insistence upon the study of our actual industrial world, in the skill with which the salient features of this organization are depicted, he sets a laudable example and merits the applause of all economists. There is displayed in it all a rare sanity and intelligence. It is only by this method that progress can be achieved. As to results, the author's own words will give the best account.

"The point has now been reached where we can observe the differences, in their relation to capital, between the wages of the hired laborer and those of the independent workman. The hired laborer is undoubtedly dependent on capital and gets his wages from capital in a sense in which the independent workman does not. His money income, the first and the essential means toward getting a real income, is turned over to him by capitalists. It comes from funds in the possession of a body of which his immediate employer is a member, and which includes all the active co-operators in the management and control of industry. . . . In this sense his earnings depend on a wages-fund, on the sums which the employers judge it expedient to turn to the hire of labor; and in this sense the independent workmen

evidently do not depend on capitalists or on a wages-fund. In another sense, all workmen, whether hired or independent, get their wages from capital and are dependent on a wages-fund. This is in the sense that all real income is derived from consumable commodities; that these are the product of past labor; that the supply of them available for fresh use at any time is small, and that the supply for any considerable stretch of time exists mainly in the form of inchoate wealth (capital). The real income of all classes in the community comes from past product, and in the main from real capital. This is a very different wages-fund doctrine from the other. It will hold good under any conditions of society, so long as the arts are carried on in such manner that a long stretch of time elapses between the beginning and the end of the successive steps in production."

In the other chapters of this first part the author explains more at length what he means by this dependence of income on capital and discusses the limits which this organization of industry and the interadjustment of its parts place upon the amount of real income at any time possible for the various classes of recipients. The distinctive feature of his view is that he regards the active managers of industry as holding in their power the direction of production and therefore in the main the adjustment of the various "shares" in real income.

I must express my dissent from several of the main conclusions reached by the learned and able author of this volume.

His historical evidence does not seem convincing upon the point that the wages-fund doctrine was ever essentially anything else than an attempt to explain wages of hired labor in an industrial society of the modern type, where money funds in the hands of the employing capitalists were supposed to constitute the fund out of which laborers received their wages. He does not prove that the historical wages-fund doctrine was ever the broad philosophical truth as to the issuance of all income from capital, which he would make it.

But it was this historic doctrine not the philosophical principle which the critics of the wages-fund theory attacked. The fact that the existence of a great mass of capital is necessary in long-time production is not sufficient reason to deny that the rate of wages received by hired labor is determined by the value of the product of their labor. The advocates of the labor-product theory of wages not only accept Professor Taussig's fundamental principle that capital, the product of past labor, is the indispensable means to the continued flow of income, but they make it one of the main bases of their theory. It is only, in our highly organized society, through the agency of this capital and the industrial organization of men which corresponds to it, that labor is enabled to receive as wages, the products of labor.

Professor Taussig regards present "real" wages, as the wages of present labor, *i. e.*, that the things consumed during present labor are the return to that labor. This is a confusing definition, but let us accept it for the sake of argument. The labor-product theory of wages urges that because of the existence of this capital, the laborer in modern society is enabled to receive his product, not in things unfinished, which are of no use to him now, but in things finished. It urges further that the measure of the wages received is not the existing capital but is the value of the goods made by the labor of the wage-receiver. The theory does not rest upon a confusion between real wages and money wages as Professor Taussig seems to think. It is founded upon a clear insight into the very quality and operation of capital which Professor Taussig himself makes the basis of his opposing argument.

Again, "real" wages, or the goods consumed by laborers, says Professor Taussig, come from capital, or more specifically from the retail merchants who sell the goods, not from the employers of labor. Assuming money to be stable in value, and recognizing with Professor Taussig that the laborers first receive their money wages from their employers and then purchase the real wages, the question arises, What is the measure of the wages received? We can disregard fluctuations in prices and thus treat money wages and real wages as equivalent. What is this equivalence? Evidently an equivalence in value. (The essential function of money is to represent value in the generic. This is the reason why the wages question can be more advantageously studied in terms of money. It is ignoring one of the most vital parts of our industrial organization to say with Mill and Taussig that the money mechanism is an indifferent thing and can be eliminated from the discussion.) What determines the amount of money, *i. e.* of value, received by the laborer? Professor Taussig says, by implication, the existing amount of such forms of capital as are ready to "emerge" into the goods consumed by the laborers, in other words, by the habitual consumption of the laborers. But this does not bring us to the professor's avowed principle that it is the amount which capitalists decide to turn over to the laborers. He does not point out how in general capitalists, or in particular, how employers of labor on the one hand, and sellers of goods to laborers, on the other, come to an understanding as to the amount. The labor-product theory on the other hand does explain that the reason why the laborers receive so much money, and secondarily so much "real" wealth is that their product, which takes the shape of additional capital in possession of the employers, is an equivalent in value to their receipts.

If they take so much out of Böhm-Bawerk's general subsistence fund they put in simultaneously, or antecedently or subsequently, it matters

not for this purpose, an equal amount. This flow in and out of the reservoir, as Professor Newcomb puts it, is the important thing to study in ascertaining the rate of wages, not the absolute amount in the reservoir at any particular time. The effect of the size of the reservoir upon the rate of flow is an element of secondary or tertiary importance. The primary cause of the outflowing wages is the inflowing product.

Again, as to general income, accepting Professor Taussig's conception of the industrial process—the continuous emergence of every variety of finished goods, as income, from the accumulated capital of the whole society—his conclusion that the rate of flow of income is determined primarily by the amount of existing capital of various kinds and on the choices of its owners as to the use they shall make of it, appears radically one-sided. It leaves out of account both the inventive and organizing skill of the undertakers and the skill and energy of the laborers. While he must recognize that capital does not emerge into income without human agency, he says simply that the rate of income depends on the capital. It is evidently just as much dependent on the organization and the labor. In the fact that the rate of general social income depends on the efficiency of labor, the advocates of the labor-product theory have a solid basis for their doctrine. Both the rate of wages and the rate of return to capital can best be ascertained from a study of the forces which create new wealth. And we shall never reach a satisfactory explanation until we visualize the adjustment of human powers to long-time production as vividly as we do capital. Capital is simply matter in meaningless shapes except as it is steadily wrought upon by the complicated, accurately-adjusted, ever-working organization of human power. "Inchoate wealth" or capital, has no value except in view of its future transformation by organized humanity. Left alone, it falls to wrack in a month. The efficiency of this social industrial organization is one of the determining causes of the rate of flow of income. The value of Professor Taussig's book is rather in the skillful analysis of some parts of this human industrial mechanism than in his insistence upon capital alone as determining income. This insistence, ostensibly in the name of progress, would lead economic science backward.

There is another point of view from which it may be solidly argued that wages are the product of labor. Henry George has urged that since the workman adds to the value of the product in his employer's hands and thereupon receives wages, he thereby produces his wages. George's argument may not go far enough, but his beginning may be justified. Value is the true content of economic goods and exchange is a productive process. It is just as legitimate to regard the value-product

received by the laborer as the product of his labor as it is to regard the value-product directly due to his labor as his product. In primitive society, before division of labor, the satisfaction of the individual's wants came from the actual physical good which took shape under his single hand. In modern industry, there stands between the individual and his satisfaction the complex of the social industrial organization. The primitive man moved the lever of the physical mechanism simply, the modern man must move the levers of this social mechanism as well. In the primitive world he moved one stone above another and ground his material for bread. In the modern world he hammers in shoe-pegs, but thereby makes bread, just the same. To call this fanciful and unreal is to deny reality to our modern industrial organization. The modern man simply uses an additional machine. Or rather the primitive man is a myth, for production has always involved the co-operation of others. It is a truth in the main that the workman consumes his product. Professor Taussig, taking a fixed period and a strictly physical view of economic goods and economic processes, denies, naturally enough, that wages in the sense of the actual things consumed during this period can be paid out of his product. But the exchange of the actual physical thing made by the laborer for his money wage is a productive process in the economic sense and the further exchange of this money for goods consumed by him is another productive process.

Another labor-productivity theory of wages, unnoticed by the author, has been elaborated with great nicety by Professor John B. Clark. He has demonstrated clearly that the fundamental law of wages is a tendency to equality between the social value created and the social value received by the wage-earner.

As to the problem of the wages of hired labor, the predominant type in modern society, Professor Taussig says: "Hired laborers are dependent on a wages fund . . . which is in the hands of the capitalist class. Their money income (elsewhere shown by him to be the requisite means to acquire real income) is derived from what the capitalists find it profitable to turn over to them."

If this be granted it does not solve the problem. What makes it "profitable to turn over" wages to the laborer? The test of its profitableness is directly in the product of that labor. If none is turned over there is no profit, because there is no product. Again there is another point at which it ceases to be profitable to turn over more. Why? Because the product of the additional labor is found to be equal in value only to the wages paid. Capitalist and laborer find themselves in partnership. The highest gain to both depends upon their keeping the machinery of production going till the point is reached

where greater productivity of goods begins to show a lessening value received. The capitalist, then, is dependent on labor and receives his profits from labor in as true a sense as the laborer is dependent on capital and receives his wages from capital. And keeping in mind the trained muscles and practiced skill of the laborers, the accumulated fund, so to speak, of labor power embodied in the workmen, it would be proper and true to explain profits by referring to a "profits-fund" of labor upon which the capitalist was dependent. We might in this way say that the money income of the capitalist class is derived from what the laborers find it advantageous to turn over to them out of this fund. The elasticity or rigidity of this fund of labor power might make an important part of the controversy. The present income of all classes of society, including capitalist-employers, is derived, "emerges," from this accumulated fund of intelligence, foresight and manual skill. In fact practically everything might be asserted concerning this "fund" which Professor Taussig asserts concerning capital as to the dependence of the present upon the past. It would be equally true and would yield equal elucidation of the problem of income. The question of general social income is a question of the joint productivity of capital and labor, and the wages of hired labor form simply one of the special branches of this general inquiry.

One more point. Professor Taussig criticises Hermann's view, that the source of wages is the income of those who buy the laborer's product, by saying that since this reduces itself in large part to the assertion that wages is the source of wages it is reasoning in a vicious circle. The criticism is inconclusive. It is of the very essence of exchange production that the goods produced by different sets of laborers should mutually form the real wages of these different sets of laborers. This is in fact but another form of statement of Professor Taussig's own fundamental proposition concerning the nature of modern production.

Professor Taussig has made a notable contribution to the literature of the wages question. Machine production, steam transportation and the growth of democracy have made wages in a sense the vital centre of theoretic controversy and social agitation throughout this century. Protection, monetary policy, the sphere of government control, and the type of social organization must meet their enduring tests by a reference to the wages of labor. If it be correct to judge from the number of rival wages theories at present finding adherents among economists, both professional and amateur, the final emergence of a true theory must be yet far in the future.

Professor Taussig, by instinct and training a scientist, has made a bold attempt to carry the investigation through the superficial

phenomena to the solid fundamentals of the subject. His work displays an admirably judicial temperament, a clear and persistent grasp of the essential facts, reasoning ingenious and keen. With the modesty of real science he does not claim to have reached finality. He may rightfully claim, nevertheless, to have shown the inadequacy of the historic wages-fund theory and of the chief criticisms of that theory as well. He has demonstrated the historic relativity of these theories. He has set up conspicuously in the light certain essential facts of our present civilization which make a new theory necessary. He has, at the same time, discovered to view certain universal relations of capital to labor which must form elements of the true wages theory, whatever stage of industrial development may be under consideration, whatever may be the economic structure of society. Professedly treating of concrete particulars he has reached universals. Merely scientific in aim, he reveals himself substantially a philosopher.

His method is in line with that of the best work of the younger economists of the present, men trained originally in the rigid logic of the classical economists and then brought under the stimulating influence of the historical school. The result is first negative, a critical destruction of inaccuracies in the older explanations of economic life. This is followed by a bold attempt to construct solid bases for new theories. The new theory must inevitably contain what is true in the old. But to justify itself it must do more than this. If any radical defect appears in Professor Taussig's study it is here; in its failure to find a synthetic unity in the tendencies in those modern wages theories which have discarded the wages-fund theory. In this way only does it seem hopeful to reach any satisfactory explanation of the law of wages. Professor Taussig is too skeptical of the value of these anti-wages-fund theories. He has insisted on a certain true fundamental principle as the basis of the wages-fund theory. His treatment of the theories antagonistic to the wages-fund theory does not show the same attempt to reach the depth of the matter. Not merely in Herrmann, Longe, Thornton, George and Walker, whom he does mention, but in Hobson and Marshall, in Gunton, Wood, Patten and Clark and in Wieser are found explanations of wages which have indisputable truth at their basis and which, with one or two exceptions, rest on the same fundamental principles. Professor Taussig has chosen a different basis for his theory. He is, therefore, likely to be challenged for not having positively shown the futility of these rival theories.

SIDNEY SHERWOOD.

Johns Hopkins University.